<Digit> ::= 1 |2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

<Integer> ::= <Digit> | <Digit><Integer>

<Char> ::= $ | % |& | ( | ) | \* | + | ` | . | , | / | ; | < | = | > | ? | @ | A | B | C | D | E | F | G | H | I | J | K| L | M| N | O |P | Q | R | S | T | U| V | W | X | Y | Z | \ | ^| \_ | a | b | c | d | e | f | g | h | I | j | k | l | m| n | o | p | q | r | s | t | u | v | x | y | z | { | } | ~ | 1 |2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

<String> ::= <Char> | <Char><String> | <Char> <String>

<Token> : := <TokenInternalUnknown> | <TokenSpace> | <TokenSpaceDiff> | <TokenInternalScalarUnknown> | <TokenScalarString> | <TokenScalarInt> | <TokenScalarNull> | <TokenKeyColon> | <TokenBeginMapping> | <TokenEndMapping> | <TokenDashListItem> | <TokenBeginBracketList> | <TokenEndBracketList> | <TokenCollectionSep> | <TokenNewLine>

<TokenInternalUnknown> : := <String>

<TokenSpace> : := “ ”

<TokenSpaceDiff > : :=

<TokenInternalScalarUnknown> : := <TokenScalarNull>

<TokenScalarString> : := <String>

<TokenScalarInt> ::= <Integer>

<TokenScalarNull> : := “null” | “~”

<TokenKeyColon> : := “: “

<TokenBeginMapping> : := “{“

<TokenEndMapping> ::= “}”

<TokenDashListItem> : := “- “

<TokenBeginBracketList> ::= “[“

<TokenEndBracketList> : := “]”

<TokenCollectionSep> : := “,”

<TokenNewLine> : := “\n”

//LISTS

<ListItem> ::= <TokenDashListItem><String><TokenNewLine>

<ListOfScalars> ::= <ListItem>| <ListItem><ListOfScalars>

Example of list of scalars:

- Mark McGwire  
- Sammy Sosa  
- Ken Griffey

<MappingListsOfScalars> ::= <String><TokenKeyColon><TokenNewLine><ListOfScalars>

Ex. of mapping lists of scalars

american:  
- Boston Red Sox  
- Detroit Tigers  
- New York Yankees  
national:  
- New York Mets  
- Chicago Cubs  
- Atlanta Braves

<MappingOfScalars> ::= <String><TokenKeyColon><String><TokenNewLine> |

<String><TokenKeyColon><String><TokenNewLine><MappingOfScalars>

Ex. Of Mapping of Scalars

hr: 65   
avg: 0.278   
rbi: 147

<ListOfMappings> ::= <TokenDashListItem><ListOfMappings’><TokenDashListItem>

<ListOfMappings’> ::= <MappingOfScalars><ListOfMappings’>

Example of sequence of mappings:

-  
 name: Mark McGwire  
 hr: 65  
 avg: 0.278  
-  
 name: Sammy Sosa  
 hr: 63  
 avg: 0.288

-

<KeyValuePair> ::= <String><TokenKeyColon><String> | <String><TokenKeyColon><String><TokenCollectionStep><KeyValuePair> | <String><TokenKeyColon><String><TokenCollectionStep><KeyValuePair><TokenNewLine>

<MappingOfMappings> ::= <String><TokenKeyColon><TokenSpace><TokenBeginMapping><TokenNewLine><KeyValuePair><TokenEndMapping> |

<String><TokenKeyColon><TokenSpace><TokenBeginMapping><KeyValuePair><TokenEndMapping>

Example of Mapping of Mappings:

Mark McGwire: {hr: 65, avg: 0.278}  
Sammy Sosa: {  
 hr: 63,  
 avg: 0.288,  
 }

//BRACKET LISTS:

<EmptySquareBracketList> ::= <TokenBeginBracketList><TokenEndBracketList>

<BracketItemWithComma> ::= <String><TokenCollectionStep> | <String><TokenCollectionStep><BracketItemWithComma>

<OneItemBracketList> ::= <TokenBeginBracketList><String><TokenEndBracketList>

<MultipleItemBracketList> ::= <TokenBeginBracketList> <BracketItemWithComma><String><TokenEndBracketList>

//SEQUENCE OF BRACKET LISTS:

<BracketItem> ::= <EmptySquereBracketList> | <OneItemBracketList> | <MultipleItemBracketList>

<BracketListItem> ::= <TokenDashListItem><BracketItem><TokenNewLine>

<ListOfBracketLists> ::= <BracketListItem> | <BracketListItem><ListOfBracketLists>

//NESTED LISTS

//Using EBNF for repetition count

<TokenSpace>(1) : := “ ”

<TokenSpace>(n) : := “ ”<TokenSpace> (n-1)

n – represents positive natural numbers and describes how many times tokenSpace will be repeated.

<Item> ::= <ListItem> | <OneItemBracketList> | <MultipleItemBracketList> | <MappingListsOfScalars> | <MappingOfScalars> | <ListOfBracketLists> | <ListOfMappings> | <MappingOfMappings>

// ‘i’ is nested level count. At start ‘i’ = 0

<NestedList> := <Item> | <TokenSpace>(I+1)<Item>

//DOCUMENT VARIABLES

<DNull> ::= null | <TokenScalarNull>

<DInteger> ::= <Integer> | <TokenScalarInt>

<DString> ::= <String> | <TokenScalarString>

<DList> ::= <EmptyList> | <ListOfScalars> | <ListOfMappings>

<DMap> ::= <EmptyMap> | <MappingListsOfScalars> | <MappingOfMappings> | <NestedMapping>

<Document> ::= <DNull> | <DString> | <DInteger> | <DList> | <DMap>